# Washington State Institute for Public Policy

Benefit-Cost Results

## Families and Schools Together (FAST)

Benefit-cost estimates updated June 2016. Literature review updated April 2012.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our Technical Documentation.

Program Description: Families and Schools Together (FAST) is a multi-family after-school program. Originally developed to serve young school-age children at risk of school failure, the program is now also offered in schools with high rates of poverty and other risk factors. The goals of the program are to increase parent involvement in schools, strengthen the parent-child relationship, reduce stress by developing parent support groups, and prevent substance abuse by the child and family. Groups of 8 to 12 families meet for eight consecutive weeks for 2½ hours after school or early in the evenings. Teams of trained facilitators conduct meetings that involve experiential learning, parent-child play, and a shared meal.

### Benefit-Cost Summary Statistics Per Participant

Benefits to:

| | |
|---|---|
| Taxpayers | $681 |
| Participants | $1,375 |
| Others | $826 |
| Indirect | ($900) |
| Total benefits | $1,982 |
| Net program cost | ($1,854) |
| Benefits minus cost | $128 |

| | |
|---|---|
| Benefit to cost ratio | $1.07 |
| Benefits minus costs | $128 |
| Chance the program will produce benefits greater than the costs | 49 % |

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2015). The chance the benefits exceed the costs are derived from a Monte Carlo risk analysis. The details on this, as well as the economic discount rates and other relevant parameters are described in our Technical Documentation.

## Detailed Monetary Benefit Estimates Per Participant

| Benefits from changes to:[1] | Benefits to: | | | | |
|---|---|---|---|---|---|
| | Participants | Taxpayers | Others[2] | Indirect[3] | Total |
| Crime | $0 | $24 | $56 | $12 | $91 |
| Labor market earnings associated with test scores | $1,351 | $614 | $588 | $0 | $2,553 |
| K-12 grade repetition | $0 | ($254) | $0 | ($128) | ($382) |
| K-12 special education | $0 | $161 | $0 | $81 | $241 |
| Health care associated with disruptive behavior disorder | $50 | $154 | $191 | $78 | $473 |
| Costs of higher education | ($26) | ($18) | ($8) | ($9) | ($61) |
| Adjustment for deadweight cost of program | $0 | $0 | $0 | ($934) | ($933) |
| Totals | $1,375 | $681 | $826 | ($900) | $1,982 |

[1]In addition to the outcomes measured in the meta-analysis table, WSIPP measures benefits and costs estimated from other outcomes associated with those reported in the evaluation literature. For example, empirical research demonstrates that high school graduation leads to reduced crime. These associated measures provide a more complete picture of the detailed costs and benefits of the program.

[2]"Others" includes benefits to people other than taxpayers and participants. Depending on the program, it could include reductions in crime victimization, the economic benefits from a more educated workforce, and the benefits from employer-paid health insurance.

[3]"Indirect benefits" includes estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

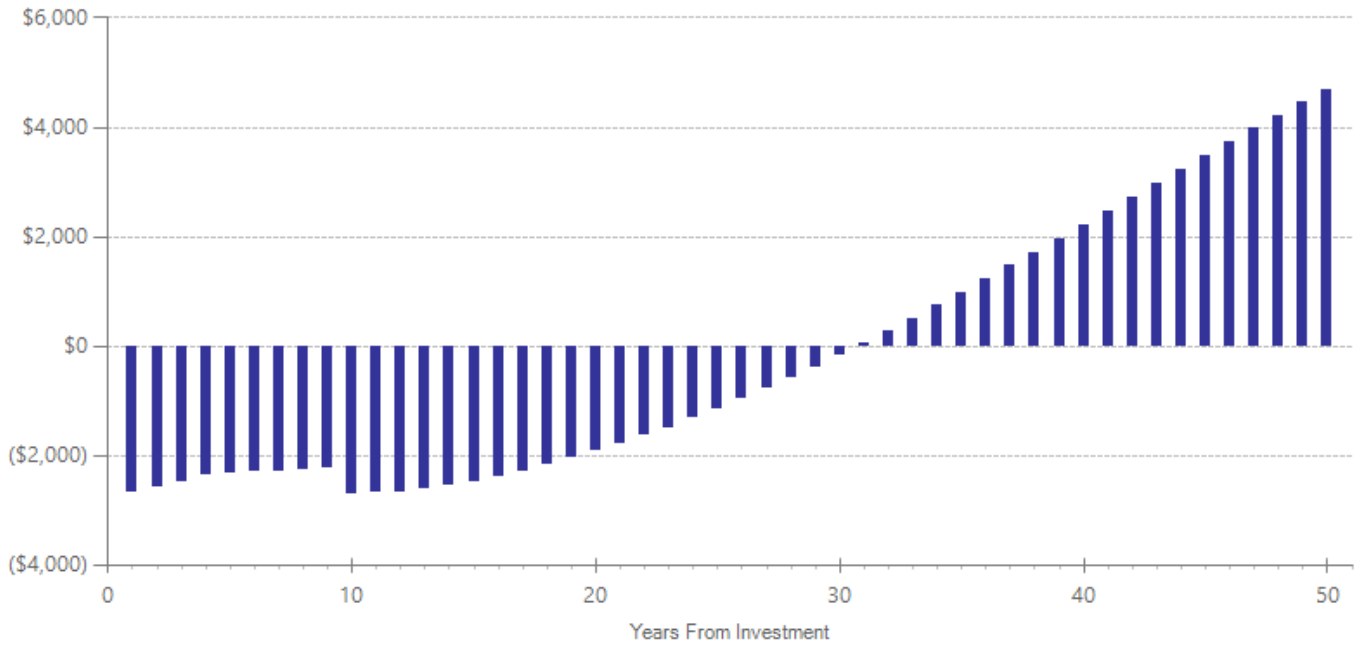
## Detailed Annual Cost Estimates Per Participant

| | Annual cost | Year dollars | Summary | |
|---|---|---|---|---|
| Program costs | $1,694 | 2009 | Present value of net program costs (in 2015 dollars) | ($1,854) |
| Comparison costs | $0 | 2009 | Cost range (+ or -) | 10 % |

This program is typically provided in eight sessions over two months. Kratochwill (2009) provided costs for the program evaluated in Madison, WI. Implementation (actual presentation of the program) cost $1,194 per child, plus an average cost of $500 per child to train the program facilitators. Training costs assumes eight groups could be accommodated per training. See Kratochwill, T.R., McDonald, L., Levin, J.R., Scalia, P.A., & Coover, G. (2009). Families and Schools Together: An experimental study of multi-family support groups for children at risk. *Journal of School Psychology, 47*(4), 245-265.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta-analysis. The cost range reported above reflects potential variation or uncertainty in the cost estimate; more detail can be found in our Technical Documentation.

## Detailed Annual Cost Estimates Per Participant




The graph above illustrates the estimated cumulative net benefits per-participant for the first fifty years beyond the initial investment in the program. We present these cash flows in non-discounted dollars to simplify the "break-even" point from a budgeting perspective. If the dollars are negative (bars below $0 line), the cumulative benefits do not outweigh the cost of the program up to that point in time. The program breaks even when the dollars reach $0. At this point, the total benefits to participants, taxpayers, and others, are equal to the cost of the program. If the dollars are above $0, the benefits of the program exceed the initial investment.

## Meta-Analysis of Program Effects

| Outcomes measured | No. of effect sizes | Treatment N | Adjusted effect sizes and standard errors used in the benefit-cost analysis | | | | | | Unadjusted effect size (random effects model) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | First time ES is estimated | | | Second time ES is estimated | | | | |
| | | | ES | SE | Age | ES | SE | Age | ES | p-value |
| Test scores | 3 | 179 | 0.031 | 0.113 | 8 | 0.017 | 0.124 | 17 | 0.104 | 0.487 |
| K-12 grade repetition | 1 | 140 | 0.288 | 0.212 | 8 | 0.288 | 0.212 | 9 | 0.288 | 0.176 |
| Externalizing behavior symptoms | 5 | 391 | -0.200 | 0.078 | 8 | -0.095 | 0.085 | 11 | -0.284 | 0.003 |
| Internalizing symptoms | 5 | 391 | -0.014 | 0.077 | 8 | -0.010 | 0.061 | 10 | -0.011 | 0.889 |
| Grade point average | 1 | 140 | -0.086 | 0.123 | 8 | -0.086 | 0.123 | 8 | -0.086 | 0.486 |

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our Technical Documentation.

## Citations Used in the Meta-Analysis


Kratochwill, T.R., McDonald, L., Levin, J.R., Scalia, P.A., & Coover, G. (2009). Families and Schools Together: An experimental study of multi-family support groups for children at risk. *Journal of School Psychology, 47*(4), 245-265.

Kratochwill, T.R., McDonald, L., Levin, J.R., Young Bear-Tibbetts, H., & Demaray, M.K. (2004). Families and Schools Together: An experimental analysis of a parent-mediated multi-family group program for American Indian children. *Journal of School Psychology, 42*(5), 359-383..

Layzer, J.I., & Webb, M.B. (2001). *National Evaluation of Family Support Programs, Volume B: Research Studies* (Final report). Cambridge, MA.

McDonald, L. (2003). *The Asian American FAST Project: Among Adaptation of Families and Schools Together.* Madison, WIS: WCER.

McDonald, L., Moberg, D.P., Brown, R., Rodriguez-Espiricueta, I., Flores, N.I., Burke, M.P., & Coover, G. (2006). After-school multifamily groups: A randomized controlled trial involving low-income, urban, Latino children. *Children and Schools, 28*(1), 25-34.



For further information, contact:
(360) 664-9800, institute@wsipp.wa.gov



Printed on 12-19-2016